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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FISH & RICHARDSON, PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER

COLIN, CARL G

ART UNIT PAPER NUMBER

2136

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/612,324	Applicant(s) EDWARDS ET AL.	
	Examiner Carl Colin	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-19 and 26-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-19 and 26-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. In response to communications filed on 5/25/2006, applicant cancels claims 4-6 and 20-25 and adds claims 31-38 and amends claims 1, 11, and 26. The following claims 1-3, 7-19, and 26-38 are presented for examination.

1. 1 Applicant's arguments, pages 6-12, filed on 5/25/2006, with respect to the rejection of the claims 1, 11, and 26 have been fully considered, but they are not persuasive. Applicant has amended the independent claims and adds new claims. However, the amended limitations are either well known or disclosed by the prior art, thus the claims are still obvious over the prior art. Applicant argues that Richards does not disclose a proxy protocol to tunnel TCP/IP data through a connective barrier. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a proxy protocol to tunnel TCP/IP data through a connective barrier) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant appears to acknowledge that Richards discloses transport layer protocol as an alternative of client/server communication using latest web browsers such as Netscape known to support HTTP, FTP, etc. (column 5, lines 43-65 and column 1, lines 56-64). Applicant's also admits in the background that using alternative protocol due to firewall is well known. Applicant's disclosure, US Patent 5,550,984 by Gelb discloses

security systems for preventing unauthorized communications between networks by translating communications received in IP Internet protocol to a non-IP protocol to remove addresses and routing services information. Claims 1-3, 7-19, and 26-30 remain rejected and the rejection of the new claims 31-38 is set forth below in view of the same references.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 11, 26, and 34 and the intervening claims are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1, 11, 26, and 34 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 5/25/2006. In that paper, applicant has stated “a proxy protocol to tunnel TCP/IP data through a connective barrier”, and this statement indicates that the invention is different from what is defined in the claim(s) because the specification as filed (page 6) merely describes that an S/FT layer to establish a firewall session may determine the appropriate proxy protocol such as HTTP, FTP or SOCKS to tunnel application data through a firewall. The original specification does not disclose a proxy protocol to tunnel application TCP/IP data through a firewall, nor establishing a first session that includes communication transport layer protocol (such as TCP/IP or UDP) using proxy network protocol (such as HTTP, FTP, and SOCKS), nor “transport layer protocol formatted data”.

Claim Objections

2.1 Claims 1, 11, 26, and 34 are objected to because the phrase “transport layer protocol formatted data using a proxy network protocol” should read transport layer protocol to maintain consistency with the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3.1 **Claims 1-3, 7-9, 10-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,754,707 to **Richards et al** in view of US Patent 6,421,732 to **Alkhatib et al** and in view of US Patent 5,564,070 to **Want et al**.

3.2 **As per claims 1, 3, 9, 13, 15, and 18, Richards et al** discloses a method of establishing communications comprising: establishing a virtual connection between a source computer system and located behind a first connectivity barrier and a destination computer system and

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located behind a second connectivity barrier, for example (see column 11, claim 1 and column 12, claim 14); establishing a first session between the source computer system and a service and establishing a second session between the destination computer system and the service, for example (see column 11, claim 1 and column 12, claim 14). See also column 4, line 55 through column 5, line 50. Richards discloses restoring previously working states from reference states in a transparent way (column 3, lines 42-61). **Richards et al** teaches “a nexus that allows client programs to communicate by acting as a central junction where communications are sent and relayed to the appropriate client programs... the nexus forwards communication on the destination’s client registered downspout” and relaying information (see column 4, line 55 through column 5, line 50 and column 6, lines 10-15 and 35-46) that meets the recitation of forwarder/relay service; **Richards et al** also discloses establishing a virtual connection between two computers wherein a session between nexus and one of the computers remains open and even if the other computer connection is lost or interrupted the other computer re-establishes connection (see column 12, lines 25-67). Richards discloses transport layer protocol such as TCP/IP connection between client/server communication using latest web browsers such as Netscape known to support HTTP, FTP, etc. (column 5, lines 43-65 and column 1, lines 56-64). **Richards et al** does not explicitly teach roaming between networks. Roaming between networks is notoriously well known for a wireless to search between networks to reestablish sessions. Maintaining a connection to a destination endpoint when the source roams between network as the connection can be temporary lost is well known in the art as disclosed by **Want et al**. **Want et al** teaches maintaining connections among various computers in a wireless network including mobile computers, and further discloses the importance of maintaining connection even if the

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connection of the source endpoint is temporarily lost (see prior art, column 3, line 45 through column 4, line 55). See also column 7, lines 15-43. **Want et al** discloses that the application session is maintained even if the session with the mobile is temporarily lost as the mobile re-establishes connection while roaming. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Richards et al** to use source computer system as mobile users that can roam between networks and re-establish connection when the connection is temporarily lost while maintaining continuity session with the destination computer as taught by **Want et al** (column 7, lines 15-43) because one of the many advantages is that it permits any type of small device mobile units capable of roaming to use the system while maintaining processing continuity without compromising security (column 4, line 57 through column 5, line 40 and column 6, line 62 through column 7, line 43). One skilled in the art would have been motivated by the suggestions provided by **Want et al** in order to benefit from the advantages as discussed above and to be able to implement the invention with any mobile and stationary computers using various network systems.

Richards et al does not explicitly disclose assigning virtual host name to the computer system. It is known in the art that the packet can contain IP addresses and port numbers or/and domain names. **Alkhatib et al** in an analogous art teaches an IPNet gateway service that can forward and relay connections wherein the destination server is assigned a domain name (column 2, lines 53-60 and figure 1) and the client may have also a domain name (column 6, lines 37-47) so that address translation can be performed. **Alkhatib et al** also discloses the use of gateway as firewall (see column 1, lines 32-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Richards et al** to

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include a service that can associate DNS requests with host names because it provides an improved process of addressing source and destination computers based on the requests by performing address translation (column 1, lines 25-40 and column 1, line 60 through column 2, line 7) as taught by **Alkhatib et al**. One skilled in the art would have been motivated by the suggestions provided by **Alkhatib et al** to provide a service that that can forward and relay connections wherein the destination server is assigned a domain name with an improved process of addressing source and destination computers based on the requests by performing address translation.

As per claim 11, Richards et al discloses a method of establishing communications between source and destination computer systems comprising: establishing a session between the source computer system located behind a first connectivity barrier and a service, for example (see column 11, claim 1 and column 12, claim 14); and establishing a transport level communications connection between the service and the destination computer system, the destination computer system located behind a second connectivity barrier, for example (see column 11, claim 1 and column 12, claim 14). Richards discloses transport layer protocol such as TCP/IP connection between client/server communication using latest web browsers such as Netscape known to support HTTP, FTP, etc. (column 5, lines 43-65 and column 1, lines 56-64). **Alkhatib et al** discloses maintaining the session between the service and the destination computer system if the session between the source computer system and the service is interrupted as discussed in claim 1. Therefore claim 11 is rejected on the same rationale as the rejection of claim 1.

As per claims 2 and 12, Richards et al discloses the limitation of wherein at least one of the connectivity barriers comprises a firewall, for example (see column 11, claim 1 and column 12, claim 14).

As per claim 14, Richards et al discloses the limitation of including assigning one or more servers associated with the service to handle the sessions, for example (see column 7, lines 27-48).

As per claims 7-8 and 16-17, Alkhatib et al discloses wherein the virtual host names comprise part of a hierarchical naming system, (column 3, lines 53-60) and discloses using a DNS that allows users to search for host names (column 3, line 45 through column 4, line 7) that meets the recitation of providing a directory search application to allow a user to select the virtual host names. Therefore claims 7-8 and 16-17 are rejected on the same rationale as the rejection of claims 1 and 11.

As per claims 10 and 19, Richards et al discloses the limitation of including dynamically assigning at least one server associated with the service to handle the sessions, for example (see column 7, lines 27-48).

As per claims 31-32, 35-36, and 37-38, the combined references disclose the limitation of wherein a transport layer protocol includes at least one of Transmission Control

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Protocol/Internet Protocol (TCP/P), and User Data-gram Protocol (UDP), and wherein the proxy network protocol includes at least one of HTTP, FTP, and SOCKS (see **Richards et al**, column 5, lines 43-65, and column 1, lines 56-64). Richards discloses transport layer protocol such as TCP/IP connection between client/server communication using latest web browsers such as Netscape known to support HTTP, FTP, etc.

4. **Claims 26-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,754,707 to **Richards et al** in view of US Patent 6,421,732 to **Alkhatib et al** in view of US Patent 5,564,070 to **Want et al** and in view of US Patent 6,185,606 to **Bereiter**.

4.1 **As per claims 26-28, Richards et al** substantially teaches an article comprising a computer-readable medium including computer-executable instructions for causing a computer system, in response to a request from a first computer system located behind a first connectivity barrier to establish connectivity to a second computer system, for example (see column 11, claim 1 and column 12, claim 14) and further teaches establish a session initiated by the second computer system if the second computer system is located behind a second connectivity barrier, for example (see column 5, lines 1-10). **Richards et al** further discloses establish a direct session with the second computer system if the second computer system is not located behind a connectivity barrier, for example (see column 5, lines 1-10 and column 4, lines 63-67).

Richards et al discloses assign a server to handle a session between the first computer system and a service, for example (see column 7, lines 27-48). Richards discloses transport layer protocol such as TCP/IP connection between client/server communication using latest web

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browsers such as Netscape known to support HTTP, FTP, etc. (column 5, lines 43-65 and column 1, lines 56-64). **Richards et al** does not explicitly disclose making a determination in response to if the second computer system is located or not behind a connectivity barrier.

Bereiter in an analogous art teaches a system to establish a session initiated by the second computer system if the second computer system is located behind a second connectivity barrier and to instruct the first computer system to establish a direct session or transport level communications connection with the second computer system if the second computer system is not located behind a connectivity barrier to adapt to the available communication path, for example (see column 3, line 40 through column 4, line 23). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Richards et al** to establish a session initiated by the second computer system if the second computer system is located behind a second connectivity barrier and to instruct the first computer system to establish a direct session with the second computer system if the second computer system is not located behind a connectivity barrier in order to adapt to the available communication path as taught by **Bereiter**. One skilled in the art would have been motivated by the suggestions provided by **Bereiter** so as to provide the benefit to adapt to the available communication path. Claim 26 recites the limitation of maintaining the session between the service and the destination computer system if the session between the source computer system and the service is interrupted which rejection is discussed in claim 1. Therefore claim 26 is also rejected on the same rationale as the rejection of claim 1.

Claims 29-30 contain the same limitations as claims 23-24 and claims 15-16 above. Therefore, **claims 29-30** are rejected on the same rationale as the rejection of claims 23-24 and claims 15-16.

As per claims 33-34, the combined references disclose wherein establishing the second session comprises determining a communication mode for communicating between the destination computer system and the forward/relay service and communicating data between the destination computer system and the forward/relay service according to the determined communication mode (see Bereiter, column 4, lines 3-23 and column 4, line 51 through column 5, line 14). Bereiter discloses a communication method to adapt to different mode of communication depending on the connection preferences. For instance, a transport layer point-to-point protocol connection may be used for messages originating from the client to the server whereas another connection preference is used for messages originating from the server to the client that meets the recitation above. Therefore claims 33-34 are also rejected on the same rationale as the rejection of claim 1.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 571-272-3862. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Carl Colin
Patent Examiner
May 25, 2006


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100